

Notice of Allowability

Application No.

10/048,077

Examiner

D. I. Lee

Applicant(s)

MATTHEWSON, PETER

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/21/04.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☒ The drawings filed on 30 May 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>0604</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. Receipt is acknowledged of the Preliminary Amendment filed 21 May 2004.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Hoover on 28 May 2004.

The application has been amended as follows:

IN THE CLAIM

3. Re claim 6, line 1: "claim 4 or 5" should be changed to --claim 4--.

Allowable Subject Matter

4. Claims 1-24 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Dames [WO 96/31790] discloses a method of decoding an information on a tag or marker comprising a plurality of magnetic elements on a tag supported by a substrate, wherein each magnetic elements are substantially the same width and wherein the relative position of the magnetic elements represents the information encoded by the information carrier. An interrogation signal is applied to the information so that each of the magnetic elements are subjected, in turn, to the interrogation signal and the responded signal of each of the magnetic elements are detected and process. The tag contains a number of zones of magnetic material placed along the axis of the label and each magnetic material passes through the zero-field region, and its presence and the positions of the magnetic element is

Art Unit: 2876

detected. Thus, a representation of particular code sequence is obtained using the lengths and spacing of individual magnetic material.

Zocca [US 5,917,170] discloses a method of measuring the width of the current scanning and the following width of the bar code characters to calculate the acceleration is calculated, which is assumed to be constant, and also calculate the average velocity from a given equation. The average velocity is calculated from the scanning times required for the acquisition of the each characters and the widths of the characters.

Crossfield [WO 89/06810] teaches a method for detecting element formed of a ferromagnetic alloy having a high permeability and low coercivity for providing a characteristic magnetic response to an interrogating magnetic field and detecting a returned signal in accordance with the magnetic response of the magnetic element. The frequency of the detected response generated by the magnetic element is a harmonic of the interrogation signal.

Hirano et al. [US 5,650,236] discloses a magnetic marker having a low coercive force is subjected to an AC magnetic field and the disturbances in the magnetic field of a scan area or harmonic components of an output pulse from the magnetic field is detected. The magnetic marker having large Barkhausen characteristic, and sharp pulses generated on magnetization reversal can be detected from an AC magnetic field. This marker has the advantages of having a high sensitivity, a light weight and less erroneous detections. Hirano teaches that the characteristic of a large Barkhausen reversal that an output induced voltage accompanied by the magnetization inversion is constant irrespective of either the external magnetic field or a speed of change in magnetic field, and that a sharp pulse waveform having high harmonic components is present.

One of ordinary skill in the art would not have been motivated to modify the teachings of Dames, Zocca, Crossfield, and Hirano in order to provide the specific decoding algorithm of the information carrier including the step of determine the relative positions of the magnetic element by estimating the

Art Unit: 2876

relative velocity between the interrogation signal and each of the magnetic elements, as set forth in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ely et al. [US 5,831,532], Zhou [US 5,029,291], Tyren et al. [US 5,001,458], Schrotte et al. [US 5,821,859], and Gambino et al. [US 5,831,532] discloses the characteristics of a carrier having a magnetic element when subjected to a magnetic field.

7. This application is in condition for allowance except for the following formal matters:

See the Examiner's objections to the specification and the claim (i.e., claim 23) above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. I. Lee whose telephone number is (571) 272-2399. The examiner can normally be reached on Monday through Thursday from 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. I. Lee
Primary Examiner
Art Unit 2876

D. L.